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Prepared in cooperation with the U.S. Geological Survey

DEPARTMENT OF CONSERVATION
California
Geological Survey

GEOLOGIC MAP OF THE EL CAJON 7.5' QUADRANGLE SAN DIEGO COUNTY, CALIFORNIA: A DIGITAL DATABASE

by
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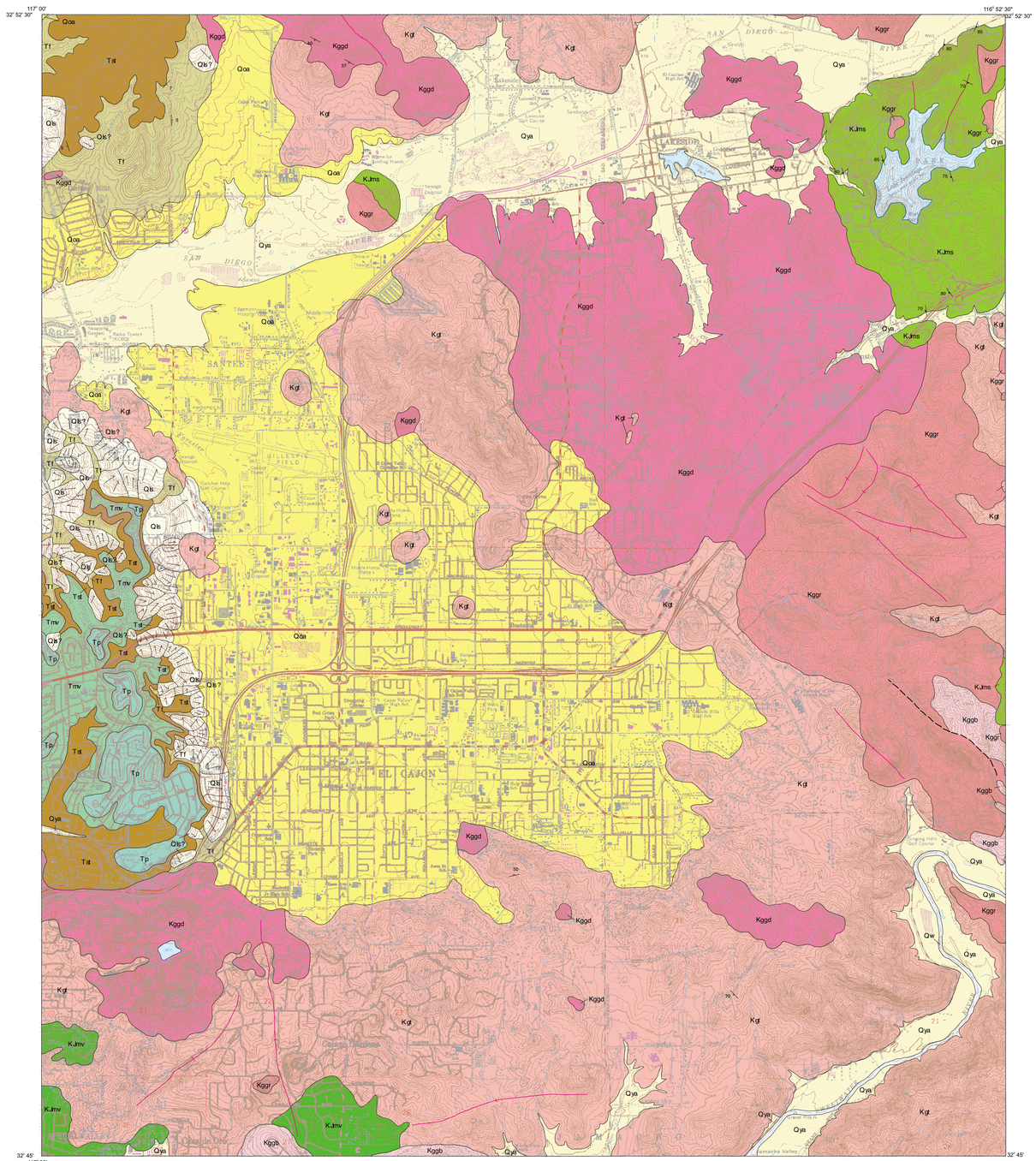


Topographic base by U.S. Geological Survey
7.5' San Vicente Quadrangle
Polyconic projection, contour interval 20 feet, dotted lines 10 feet.

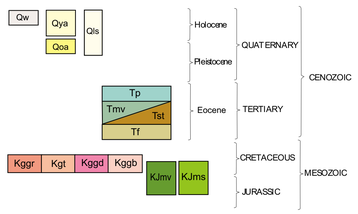
UTM GRID AND 1988 MAGNETIC NORTH DECLINATION AT CENTER OF SHEET

Scale 1:24,000

0 .5 1 2 Miles
0 .5 1 2 Kilometers
0 1 2 Thousand Feet

This map was funded in part by the USGS National Cooperative Geologic Mapping Program, STATEMAP Award no. 01HQAG0092.

CORRELATION OF MAP UNITS



MAP SYMBOLS

- Contact between map units.
- Air photo lineaments that define major joints. No significant evidence of faulting has been observed along these features.
- Fault; approximately located, dashed where inferred, dotted where concealed.
- 5 — Strike and dip of inclined sedimentary beds.
- 25 — Strike and dip of inclined foliation in metavolcanic rocks.
- 50 — Strike and dip of inclined foliation in igneous rocks.
- Landslide (Qls) - arrow(s) indicate principal direction of movement, outline includes headscarp of landslide. Queried where questionable.

DESCRIPTION OF MAP UNITS

Qw Holocene active channel and wash deposits; unconsolidated sand, silt, gravel and clay. Deposits along smaller drainage channels are included in Qya.

Qya Holocence alluvial deposits unconsolidated to poorly consolidated silt, clay, sand and gravel. Includes sediments along small, active drainage channels.

Qls Landslide deposits (Holocene to Pleistocene). Landslide slump and rock fall deposits. On map, the deposit is depicted by landslide arrows (see "MAP SYMBOLS"). Queried where questionable.

Qoa Late Pleistocene alluvial deposits; moderately consolidated, poorly-sorted flood plain deposits consisting of gravelly, sandy silt and clay.

Tp Pomerado Conglomerate (middle Eocene); poorly to moderately cemented massive non-marine cobble conglomerate with sandstone interbeds.

Tmv Mission Valley Formation (middle Eocene); poorly to moderately indurated, light-colored, medium-to fine-grained, marine, sandstone with cobble conglomerate lenses. Interfingers with underlying Stadium Conglomerate.

Tst Stadium Conglomerate (middle Eocene); poorly to moderately cemented massive cobble conglomerate with sandstone interbeds. Interfingers with overlying Mission Valley Formation.

Tf Friars Formation (middle Eocene); poorly indurated, non-marine claystone and sandstone, with lenses of cobble conglomerate. The formation contains many landslides.

Kggr Granite (Cretaceous); includes some granodiorite; mostly leucocratic; medium-to coarse-grained.

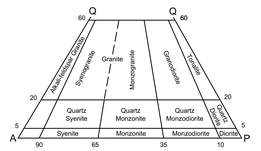
Kgt Tonalite (Cretaceous); includes some granodiorite and quartz diorite; medium-grained; generally dark colored and severely weathered.

Kggd Granodiorite (Cretaceous); includes some tonalite and monzogranite; medium-to coarse-grained.

Kggb Gabbro (Cretaceous); includes some peridotite, norite, quartz gabbro; medium- grained and dark colored.

KJmv Metavolcanic rocks (Jurassic and Cretaceous); mildly metamorphosed volcanic, volcaniclastic and sedimentary rocks. Volcanic rocks range from basalt to rhyolite, but are predominantly andesite and dacite. In general, metavolcaniclastic rocks are most abundant. Also includes minor metasedimentary rocks listed under KJms.

KJms Metasedimentary rocks (Jurassic and Cretaceous); mildly metamorphosed (greenschist facies) sandstone, siltstone and shale, schist, quartzite, metabasalt, metatuff-breccia with gneiss, fine-grained granodiorite, tonalite, and minor amounts of rocks listed under KJmv.



Classification of plutonic rock types (from IUGA, 1973, and *Streckeisen, 1973).
A, alkali feldspar; P, plagioclase feldspar; Q, quartz.

*Streckeisen, A.L., 1973, Plutonic rocks--Classification and nomenclature recommended by the IUGA Subcommission on Systematics of Igneous Rocks: Geotimes, vol.18, pp.26-30.

INDEX MAP

1. San Vincente Reservoir quadrangle
2. El Cajon quadrangle
3. Jamul Mountains quadrangle
4. Otay Mesa quadrangle

REFERENCES

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